Superfund Site Strategy Recommendation Region 6

Site Name: FANSTEEL METALS Site Number: OKD007221831

Alias Site Name(s): _____

Address: 10 TANTALUM PLACE

City/County or Parish/State/Zip: MUSKOGEE / MUSKOGEE / OKLAHOMA 74401

Recommendation:

[ ] 1. No further remedial action planned under Superfund.

[X] 2. Further pre-remedial investigative action needed under Superfund:

PA _____
SSI _____ Priority: High ___ Medium X
LSI X
Other _____
To be performed by FIT


[ ] 3. Action may be appropriate under other authority: RCRA _____
NPDES X SPCC _____ 404 _____ TSCA _____ UIC _____
SMCRA _____ State X Other _____.

Discussion:

Fansteel Metal Site is an active producer of refractory metals and one of the only three such industry in the free world. The site's activity includes processing radioactive ores to extract Uranium and Thorium to produce tantalum and Niobium pentoxide. Primary solvents or chemicals used in the extraction are hydrofluoric acid, sulfuric acid, methyl isobutyl Ketone and anhydrous ammonia. Most of the resultant byproduct is waste slurry containing Low level radioactivity which is disposed onsite into ponds. These ponds according to the data are not all lined. The lined ponds are said to be inefficient. Sampling results revealed organic, inorganic and radioactive contamination onsite. Offsite contamination includes organic and inorganics: High readings of alpha and gross beta particles were detected in the soil samples. Heavy metals analysis showed exceedance of the primary drinking water standards; ie Chromium and also exceeded the background soil sample by a factor of 10-100 times. Some of the toxic metals were arsenic, beryllium, cadium and nickel. Aroclor 1254 (PCB) and ammonia were also detected at high levels. The data also revealed 12 unidentified compounds of total concentration of 83,000ppm (unknown hydrocarbons). This site does not only pose long term imminent hazards, but also poses a complex problem due to the nature of the contaminants.

Copies to (please list): 6W-E, OSDH

Recommended By: PETER A. SAM WAM Date: 7/18/89

Approved By: Betty Williamson Date: 7/21/89

The site location is critical due to the sensitive environs within its corridors. The use of water in the area for irrigation is threaten, human health onsite is threaten by the alpha and beta radiation on a short term basis. On the other hand radiation maybe a threat to the closest residential dwellings. In summary it appears that this site has the potential to score high enough using the new HRS to be considered as an HPL candidate, because of the potential for groundwater/drinking water well contamination and the large number of targets ie. the Arkansas River. Therefore, further investigative action under superfund is recommended.